UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,543	12/18/2001	Jerry L. Mizell	14413RRUS01U	8303

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EXAMINER
PATEL, JAY P

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/025,543	MIZELL ET AL.
Office Action Summary	Examiner	Art Unit
	Jay P. Patel	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 February 2006*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some *   c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the remarks/amendment received on

2/23/2006.

2.   Claims 1-16 are pending.

3.   Claims 1-16 are rejected.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kari et.

al (US Patent 6603738 B1).

3.   In regards to claim 1, Kari discloses a method to form queues in routers based

on quality of service, connection, subscriber and/or application/application class. In

figure 1 Kari discloses parts of the mobile system essential for the method to be carried

out (see figure 1, and the abstract). This apparatus and disclosure of the method

anticipates a method of processing data traffic in transit in a mobile telecommunications

system.

In further regards to claim 1, Kari discloses that queues are formed in a router on

the basis of a subscriber-specific-identity and application class (see column 5, lines 39-

41). The forming of the queues in such a way, anticipates filtering a packet of data for an application associated therewith.

In further regards to claim 1, Kari discloses that when a subscriber registers in a system, the data is assigned a queue of its own; when several applications are started by the subscriber at the same time, a separate queue is provided for each simultaneous application (see column 5, lines 41-45). The separate queues for each simultaneous application, anticipate, applying a service marking to the packet dependent on the application associated with the packet.

In regards to claim 2, Kari discloses that the application can be identified unambiguously on the basis of a port number of a TCP protocol (see column 5, lines 33-34). This identification anticipates, reading a port from the packet and determining the application from the read port.

In regards to clam 3, Kari discloses that since TCP processes are also separate entities, they too can be distinguished form each other. Each GPRS subscriber can be identified when the parameters of the subscriber are checked form a GPRS register of some other database (see column 5, lines 35-38). The GPRS register and the storing of the parameters in it, anticipates, interrogating a table with the read port, the table including an index of at least one port, each of the at least one port comprises a key of the table, a record having a service marking respectively associated with each of the keys. Furthermore, since every application can be identified on the basis of a port number of a TCP protocol (see column 5, lines 33-34), Kari also anticipates, determining the read port has a match with a first one of the keys of the table; and since

the parameters of the GPRS subscriber can be checked from a dataset, Kari also

anticipates, returning a first service marking included in the record associated with the

first key.

In regards to claims 4 and 8, Kari discloses that the quality of service can be

signaled to the routers on the packet network by providing each packet with a code

indicating the quality of service (see column 5, lines 65-66 and column 6, line 1). The

code indication the quality of service anticipates, writing the first service marking

included in the record associated with the first one of the keys into a field of the packet.

In regards to claim 5, 10 and 14, Kari discloses that since GPRS specifies four

alternative qualities of service it is possible to identify them by two bits (column 6, lines

1-3). The four specific service classes, anticipate, a differentiated service code point.

4.   In regards to claim 6, the SGSN 15 in figure 1, functions as a router and buffers

data in a queue and forwarding it through a base station system BSC-BTS to a mobile

station MS and a PC connected to it (see column 5, lines 17-21). The SGSN

anticipates a node of a mobile telecommunication network operable to deliver at least

one packet to a mobile device serviced by the mobile telecommunication network.

In further regards to claim 6, Kari discloses that the air interface Um, forms a

clear bottleneck and therefore a queue is formed at the SGSN node (see column 5,

lines 21-22). The Um interface anticipates an interface to at least one network node.

In further regards to claim 6, each GPRS subscriber can be identified when the

parameters of the subscriber are checked form a GPRS register or some other

database (see column 5, lines 35-38). The GPRS register and the parameters stored in

it anticipate, a table comprising an index including at least one key, each key having a

record associated therewith, each record having a service marking therein, the node

operable to interrogate the table with an identification of an application obtained from

the packet. Furthermore, since every application can be identified on the basis of a port

number of a TCP protocol (see column 5, lines 33-34), and since the parameters of the

GPRS subscriber can be checked from a database, Kari also anticipates, the service

marking returned to the node upon a match between the identification and one of the

keys.

In regards to claims 7 and 11, the SGSN 15 in figure 1, functions as a router and

buffers data in a queue and forwarding it through a base station system BSC-BTS to a

mobile station MS and a PC connected to it (see column 5, lines 17-21). The SGSN

anticipates the access router that interfaces the mobile telecommunication network with

an external network.

In regards to claim 9, Kari discloses that an arriving packet, can be conducted to

a queue assigned to it on the basis of a subscriber-specific and/or QOS criterion; the

criterion includes a transport layer process (TCP) that can be identified on the basis of

the identity of a TCP session. This TCP identification anticipates, a differentiated

services field of a transport layer header encapsulated in the packet.

5.   In regards to claim 12, Kari discloses that each GPRS subscriber can be

identified when the parameters of the subscriber are checked form a GPRS register or

some other database (see column 5, lines 35-38). The GPRS register and the

parameters stored in it anticipate, a first node including table comprising one or more

keys and at least one record associated with each of the one or more keys having a

value indicative of an application, each of the one or more records having a service

marking stored therein.

In further regards to claim 12, Kari discloses a base station subsystem

comprising of a base station controller and a base transceiver system (see figure 1).

This base station subsystem anticipates, a base station subsystem operable to transmit

data to the first service node and receive form the first service node.

In further regards to claim 12, the base transceiver station BTS in figure 1,

communicates with mobile station MS over an air interface therefore, Kari anticipates at

least one base transceiver station operable to provide radio frequency links to the.

mobile device.

In further regards to claim 12, the SGSN buffers data in a queue, forwarding it

through a BSC-BTS to a mobile station MS and a PC connected to it (column 5,lines 17-

20). The SGSN's ability to buffer data, anticipates the first service node operable to

receive a first packet.

Furthermore, the application can be identified unambiguously on the basis of a

port number of a TCP protocol (column 5, lines 33-34). The unambiguous identification

of the application anticipates a determination of an application within a packet.

Furthermore, each GPRS subscriber can be identified when the parameters of

the subscriber are checked form a GPRS register or some other database (see column

5, lines 35-38). The GPRS register or database anticipates interrogating the table with

a query value indicating of the application. Furthermore, since every application can be

identified on the basis of a port number of a TCP protocol (see column 5, lines 33-34) and since the parameters of the GPRS subscriber can be checked from a dataset, Kari also anticipates a service marking being returned upon matching the query value with a first key value and the service marking maintained in a record associated with the first key value. Furthermore, the quality of service can be signaled to the routers on the packet network by providing each packet with a code indicating the quality of service (column 5, lines 65-66, and column 6, line 1). This code anticipates the node operable to write the service marking into a field of the packet, the node operable to transmit the packet across the telecommunications network.

In regards to claim 13, since an application can be identified on the basis of a port number of a TCP protocol (column 5, lines 33-34), Kari also anticipates each value of the one or more keys is a port number.

In regards to claims 15 and, Kari discloses that SGSN node or router can store quality of service information in its memory (see column 6, lines 8-9). The memory anticipates the service node comprising of the memory. The central processing unit is anticipated by the ability of the SGSN node to classify the packets in to QOS service classes as disclosed with regards to claim 1. The filter is anticipated by the ability of the SGSN node to buffer data in a queue based on QOS requirements. The identification of the application on the basis of the port number (see column 5, lines 33-35) anticipates a port number field of the packet read by the filter, the value of the port number read used by the node to interrogate the table index.

Response to Arguments

6.   Applicant's arguments filed 2/23/2006 have been fully considered but they are

not persuasive.

7.   In regards to claim 1, the applicant argues that the claimed element enables any

per-hop behaviors to be applied to packets on a per-application basis; evidence for

which is provided in paragraph 31. The examiner agrees with the applicant's argument,

however, claim 1 as written does not specifically contain such language. Furthermore,

Kari discloses that when the subscriber starts several applications at the same time, a

separate queue is provided for each simultaneous application (see column 5, lines 41-

45). Therefore, the examiner maintains that the separate queues for each simultaneous

application anticipate applying a service marking to the packet dependent on the

application.

In regards to claim 6, the applicant argues that the present application enables

the provision of differentiated quality of service when written into packets. The

application's specification provides evidence for such however, claim 6 as written does

not specifically contain such language particularly a quality of service marking.

Therefore, The GPRS register and the parameters stored in it anticipate, a table

comprising an index including at least one key, each key having a record associated

therewith, each record having a service marking therein, the node operable to

interrogate the table with an identification of an application obtained from the packet.

Furthermore, since every application can be identified on the basis of a port number of a

TCP protocol (see column 5, lines 33-34), and since the parameters of the GPRS

subscriber can be checked from a database, Kari also anticipates, the service marking

returned to the node upon a match between the identification and one of the keys.

In regards to claim 12, the examiners arguments presented with regards to

claims 1 and 6 are also applicable to claim 12.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jay P. Patel whose telephone number is (571) 272-

3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JPP 4/10/06
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